

ABSTRACT OF THE DISCLOSURE

A method for impurity implantation, in which a substrate is positioned on a table provided within a chamber in which a vacuum will be introduced and also an implantation impurity is supplied. A first high frequency electric power is applied to a plasma generating element to thereby generate a plasma so that the impurity in the chamber is implanted in the substrate. Also, a second high frequency electric power is applied to the table. Detected are a condition of the plasma in the chamber and a voltage or current in the table. A controller controls at least one of the first and second high frequency electric power sources according to the detected condition of the plasma and/or the detected voltage or current, thereby controlling an implantation concentration of the impurity to be implanted.